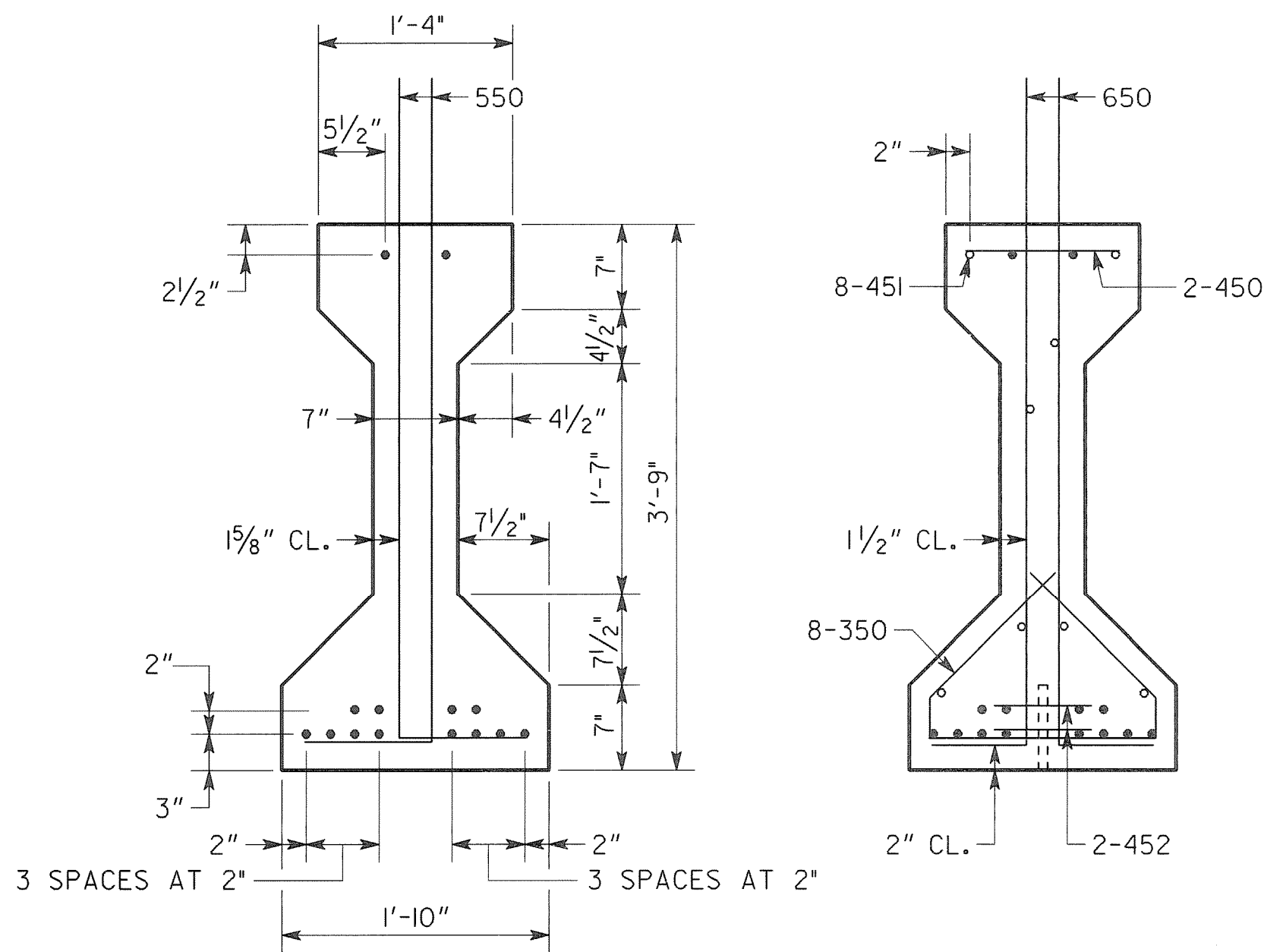


NOTE:
FIELD VERIFY LOCATION OF EXISTING PIER 5
PRIOR TO ORDERING BEAMS FOR SPAN 4.

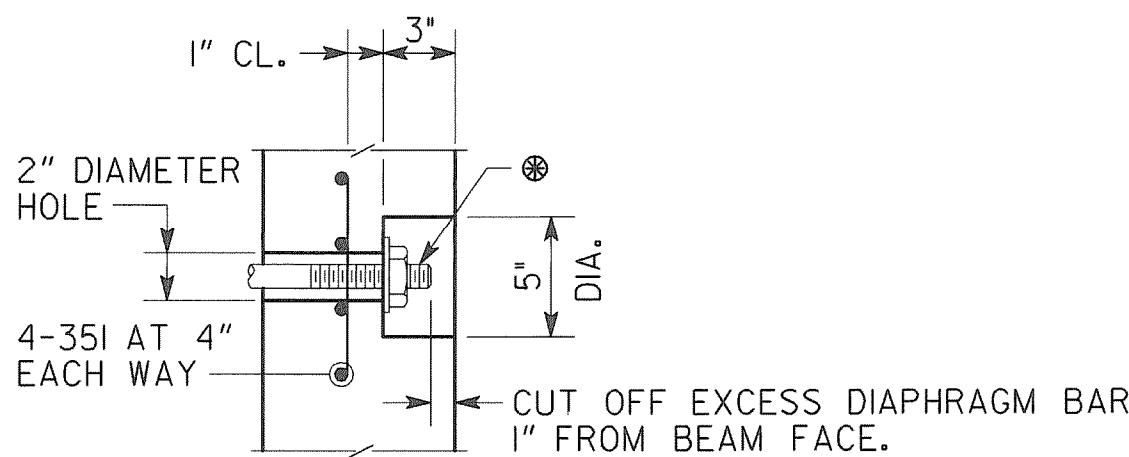
ELEVATION



NOTES

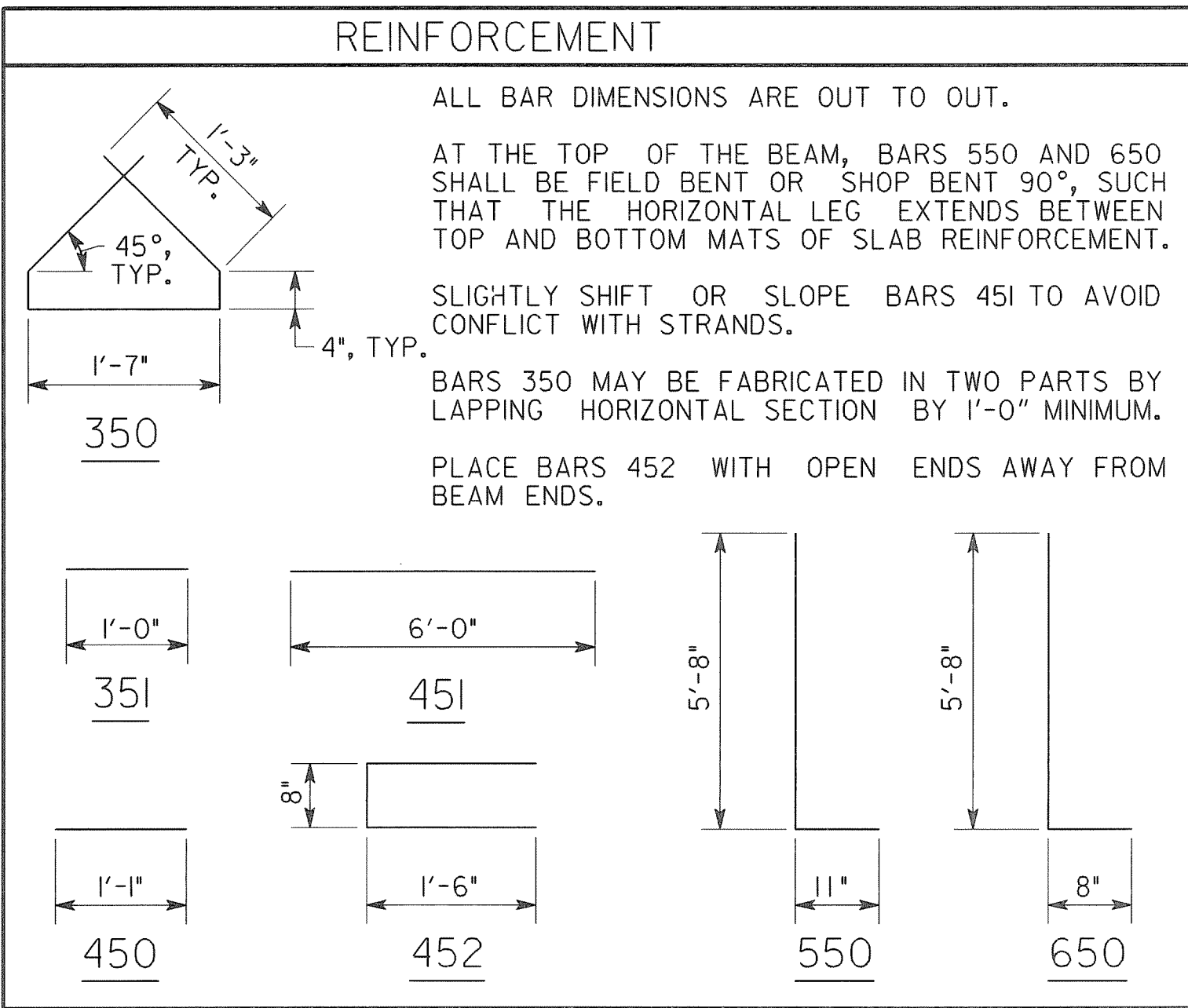
- BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 5'-6" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
- CHAMFER EDGES OF BEAMS 1/2" OR 3/4".
- HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE 1/8" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
- AT CL BEARING, FORM A 1 1/2" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 4" X 1 1/2" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1 1/4" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
- TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY 1/4". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
- NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
- COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF SIDEWALK AND PARAPET (IF ANY).
- STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
- PRESTRESSING DATA IS AS FOLLOWS:
 - USE 14 - 1/2" DIAMETER SPECIAL LOW-RELAXATION (A = 0.167 SQ IN) STRANDS. PRETENSION STRANDS TO 33,818 LBS EACH.
 - PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_c) OF 4,500 PSI.
 - THE TOTAL JACKING FORCE OF PRETENSIONING IS 473,452 LBS.
 - THE NET PRESTRESSING FORCE OF THE STRANDS AFTER LOSSES IS 410,342 LBS.
- CONCRETE STRENGTH (f'_c) = 5,000 PSI.
- PSC BEAM ALLOWABLE TENSION = 424 PSI.

SPAN	BEAM	A	B	C	D	E	F	G	H	K
SPAN 2	ALL	54'-6"	51'-6"	50'-4"	1'-3"	1'-9"	1'-10"	2'-4"	25'-9"	6"
SPAN 4	ALL	55'-6"	52'-0"	50'-10"	1'-9"	1'-9"	2'-4"	2'-4"	26'-0"	9"
SPAN 5	BEAM 1	55'-1 5/16"	51'-10 5/16"	50'-8 5/16"	1'-9"	1'-6"	2'-4"	2'-1"	25'-11 1/8"	8 1/8"
	BEAM 2	55'-1"	51'-10"	50'-8"	1'-9"	1'-6"	2'-4"	2'-1"	25'-11"	8"
	BEAM 3	55'-0 5/8"	51'-9 5/8"	50'-7 5/8"	1'-9"	1'-6"	2'-4"	2'-1"	25'-10 3/8"	7 7/8"
	BEAM 4	55'-0 5/16"	51'-9 5/16"	50'-7 5/16"	1'-9"	1'-6"	2'-4"	2'-1"	25'-10 5/8"	7 5/8"
	BEAM 5	55'-0"	51'-9"	50'-7"	1'-9"	1'-6"	2'-4"	2'-1"	25'-10 1/2"	7 1/2"
	BEAM 6	54'-11 5/8"	51'-8 5/8"	50'-6 5/8"	1'-9"	1'-6"	2'-4"	2'-1"	25'-10 3/8"	7 3/8"
	BEAM 7	54'-11 5/16"	51'-8 5/16"	50'-6 5/16"	1'-9"	1'-6"	2'-4"	2'-1"	25'-10 1/8"	7 1/8"
	BEAM 8	54'-10 5/16"	51'-7 5/16"	50'-5 5/16"	1'-9"	1'-6"	2'-4"	2'-1"	25'-9 5/16"	6 5/16"
	BEAM 9	54'-10 5/8"	51'-7 5/8"	50'-5 5/8"	1'-9"	1'-6"	2'-4"	2'-1"	25'-9 1/16"	6 1/16"



• DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH 1/4" X 3 1/2" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).
DIAPHRAGM BAR SHALL BE TIGHTENED AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.
AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, END OF DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS SHALL BE PAINTED WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, THE RECESS SHALL BE FILLED WITH AN APPROVED EPOXY GROUT.
GALVANIZING OF DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS



BRIDGE NO. 1

H&L Heath & Lineback Engineers
INCORPORATED
2390 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5393
(770)424-1668

GEORGIA

DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

TYPE III PSC BEAM
SPANS 2, 4 & 5
SPRING STREET VIADUCT OVER
CSX TRANSPORTATION

FULTON COUNTY

BHNLB-9073-00(016)
BRNLB-9073-00(018)

NO SCALE

JULY 2013

DESIGNED KAK

CHECKED RLF/GBL

REVIEWED WMD/DLC

DRAWN JRL

DESIGN GROUP SWW

APPROVED BFR

DRAWING NO.
35 - 041

BRIDGE SHEET
41 OF 79

1 INCH WHEN PRINTED FULL SIZE